

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1. (Currently Amended) A method of compressing digital data comprising the steps of:
 - (i) reading digital data as series of binary coded words representing a context and a codeword to be compressed;
 - (ii) calculating distribution output data for the input data and assigning generating variable length prefix codewords corresponding to the result in a manner which leaves logical codeword space available at the long end for new codewords for data of lower frequency when required; and
 - (iii) periodically recalculating the codewords from time to time in accordance with a predetermined schedule, in order to continuously update the codewords and their lengths.
2. (Original) A method according to claim 1 in which the codewords are recalculated each time the number of codewords has doubled.
3. (Original) A method according to claim 1 in which the codewords are recalculated for every new frame of data.
4. (Cancelled)
5. (Currently Amended) A method of processing digital video information so as to compress it for transmission or storage, said method comprising:
 - reading digital data representing individual picture elements (pixels) of a video frame as a series of binary coded words;
 - segmenting the image into regions of locally relatively similar pixels and locally relatively distinct pixels;

establishing a reduced number of possible luminance values for each block of pixels (typically no more than four);

carrying out an encoding process so as to derive from the words representing individual pixels, further words describing blocks or groups of pixels each described as a single derived word which at least includes a representation of the luminance of a block component of at least eight by eight individual pixels (super-block);

establishing a reduced number of possible luminance values for each smaller block of pixels (typically no more than four);

carrying out an encoding process so as to derive from the words representing individual pixels, further words describing blocks or groups of pixels each described as a single derived word which at least includes a representation of the luminance of a block component of typically two by two individual pixels (mini-block);

establishing a reduced number of possible luminance values for each block of pixels (typically one or two);

providing a series of changeable stored masks as a means for indicating which of the possible luminance values are to be used in determining the appropriate luminance value of each pixel for display;

comparing and evaluating the words representing corresponding portions of one frame with another frame or frames in a predetermined sequential order of the elements making up the groups to detect differences and hence changes;

identifying any of the masks which require updating to reflect such differences and choosing a fresh mask as the most appropriate to represent such differences and storing the fresh mask or mask for transmission or storage;

using context which will be available the time of decompression to encode the masks, the changes in Y values (luminance), U values (chrominance), and V values (chrominance) and the spatial or temporal gaps between changed blocks, combined with the efficient encoding scheme, to give an efficient compressed real time representation of the video; and

using generating variable length codewords, using the method of claim 1, to represent the result of transitions.

6. (Original) A method according to claim 5 in which the method further comprises an adaptive learning process for deriving a relationship between contextual information and codewords requiring compression, and a process for dynamically adjusting the relationship so as to optimize the compression rate and the efficiency of decompression.

7. (Cancelled)

8. (Cancelled)